

SEQUENCE LISTING

<110> Busfield, S.
 Villeval, J.
 Jandrot-Perrus, M.
 Vainchenker, W.
 Gill, D.
 Qian, M.
 Kingsbury, G.

<120> GLYCOPROTEIN VI AND USES THEREOF

<130> 7853-211

<150> 09/503,387
 <151> 2/14/00

<150> 09/454,824
 <151> 12/6/99

<150> 09/345,468
 <151> 6/30/99

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<170> FastSEQ for Windows Version 3.0

<210> 1
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 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Leu Pro Ser Ser Leu Val Pro Leu Glu Lys Pro Val Thr Leu Arg Cys
 35 40 45
 Gln Gly Pro Pro Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser
 50 55 60
 Ser Arg Tyr Gln Asp Gln Ala Val Leu Phe Ile Pro Ala Met Lys Arg
 65 70 75 80
 Ser Leu Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp
 85 90 95
 Ser Leu Pro Ser Asp Gln Leu Glu Leu Val Ala Thr Gly Val Phe Ala
 100 105 110
 Lys Pro Ser Leu Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly
 115 120 125
 Asp Val Thr Leu Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala
 130 135 140
 Leu Tyr Lys Glu Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp
 145 150 155 160
 Tyr Arg Ala Ser Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly
 165 170 175
 Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser
 180 185 190

Ala Pro Ser Asp Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr
 195 200 205
 Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser
 210 215 220
 Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr
 225 230 235 240
 Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
 245 250 255
 Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
 260 265 270
 Ile Cys Leu Gly Ala Val Ile Leu Ile Leu Ala Gly Phe Leu Ala
 275 280 285
 Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
 290 295 300
 Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys
 305 310 315 320
 Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly
 325 330 335
 Leu Cys Ser

<210> 4
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 4
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 Arg Val Pro Ala
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<210> 5
 <211> 319
 <212> PRT
 <213> Homo sapiens

<400> 5
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 Leu Val Pro Leu Glu Lys Pro Val Thr Leu Arg Cys Gln Gly Pro Pro
 20 25 30
 Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser Ser Arg Tyr Gln
 35 40 45
 Asp Gln Ala Val Leu Phe Ile Pro Ala Met Lys Arg Ser Leu Ala Gly
 50 55 60
 Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp Ser Leu Pro Ser
 65 70 75 80
 Asp Gln Leu Glu Leu Val Ala Thr Gly Val Phe Ala Lys Pro Ser Leu
 85 90 95
 Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly Asp Val Thr Leu
 100 105 110
 Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala Leu Tyr Lys Glu
 115 120 125
 Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp Tyr Arg Ala Ser
 130 135 140
 Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys
 145 150 155 160
 Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser Ala Pro Ser Asp
 165 170 175
 Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr Pro Ser Arg Leu
 180 185 190

Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser Glu Ala Thr Ala
195 200 205
Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr Thr Glu Thr Ser
210 215 220
Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser Pro Ala Gly Pro
225 230 235 240
Ala Arg Gln Tyr Tyr Lys Gly Asn Leu Val Arg Ile Cys Leu Gly
245 250 255
Ala Val Ile Leu Ile Leu Ala Gly Phe Leu Ala Glu Asp Trp His
260 265 270
Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala Val Gln Arg Pro
275 280 285
Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys Ser His Gly Gly
290 295 300
Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly Leu Cys Ser
305 310 315

<210> 6
<211> 41
<212> PRT
<213> Homo sapiens

<400> 6
Cys Gln Gly Pro Pro Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser
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Ser Ser Arg Tyr Gln Asp Gln Ala Val Leu Phe Ile Pro Ala Met Lys
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Arg Ser Leu Ala Gly Arg Tyr Arg Cys
35 40

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<212> PRT
<213> Homo sapiens

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Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp Tyr Arg Ala Ser Phe
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Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys
35 40 45

<210> 8
<211> 19
<212> PRT
<213> Homo sapiens

<400> 8
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Phe Leu Ala

<210> 9
<211> 249
<212> PRT
<213> Homo sapiens

<400> 9
Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln Ala Leu Pro Ser Ser
1 5 10 15

Leu Val Pro Leu Glu Lys Pro Val Thr Leu Arg Cys Gln Gly Pro Pro
 20 25 30
 Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser Ser Arg Tyr Gln
 35 40 45
 Asp Gln Ala Val Leu Phe Ile Pro Ala Met Lys Arg Ser Leu Ala Gly
 50 55 60
 Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp Ser Leu Pro Ser
 65 70 75 80
 Asp Gln Leu Glu Leu Val Ala Thr Gly Val Phe Ala Lys Pro Ser Leu
 85 90 95
 Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly Asp Val Thr Leu
 100 105 110
 Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala Leu Tyr Lys Glu
 115 120 125
 Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp Tyr Arg Ala Ser
 130 135 140
 Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys
 145 150 155 160
 Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser Ala Pro Ser Asp
 165 170 175
 Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr Pro Ser Arg Leu
 180 185 190
 Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser Glu Ala Thr Ala
 195 200 205
 Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr Thr Glu Thr Ser
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 Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser Pro Ala Gly Pro
 225 230 235 240
 Ala Arg Gln Tyr Tyr Thr Lys Gly Asn
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<210> 10
 <211> 51
 <212> PRT
 <213> Homo sapiens

<400> 10
 Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
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 Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly
 35 40 45
 Leu Cys Ser
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<210> 11
 <211> 2170
 <212> DNA
 <213> Homo sapiens

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						2170

<210> 12
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 <212> PRT
 <213> Homo sapiens

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 Ala Glu Pro Gly Ser Val Ile Ser Trp Gly Ser Pro Val Thr Ile Trp
 35 40 45
 Cys Gln Gly Ser Leu Glu Ala Gln Glu Tyr Arg Leu Asp Lys Glu Gly
 50 55 60
 Ser Pro Glu Pro Leu Asp Arg Asn Asn Pro Leu Glu Pro Lys Asn Lys
 65 70 75 80
 Ala Arg Phe Ser Ile Pro Ser Met Thr Glu His His Ala Gly Arg Tyr
 85 90 95
 Arg Cys His Tyr Tyr Ser Ser Ala Gly Trp Ser Glu Pro Ser Asp Pro
 100 105 110
 Leu Glu Leu Val Met Thr Gly Phe Tyr Asn Lys Pro Thr Leu Ser Ala
 115 120 125
 Leu Pro Ser Pro Val Val Ala Ser Gly Gly Asn Met Thr Leu Arg Cys
 130 135 140
 Gly Ser Gln Lys Gly Tyr His His Phe Val Leu Met Lys Glu Gly Glu
 145 150 155 160
 His Gln Leu Pro Arg Thr Leu Asp Ser Gln Gln Leu His Ser Gly Gly
 165 170 175
 Phe Gln Ala Leu Phe Pro Val Gly Pro Val Asn Pro Ser His Arg Trp
 180 185 190
 Arg Phe Thr Cys Tyr Tyr Tyr Met Asn Thr Pro Gln Val Trp Ser
 195 200 205
 His Pro Ser Asp Pro Leu Glu Ile Leu Pro Ser Gly Val Ser Arg Lys
 210 215 220

Pro Ser Leu Leu Thr Leu Gln Gly Pro Val Leu Ala Pro Gly Gln Ser
 225 230 235 240
 Leu Thr Leu Gln Cys Gly Ser Asp Val Gly Tyr Asp Arg Phe Val Leu
 245 250 255
 Tyr Lys Glu Gly Glu Arg Asp Phe Leu Gln Arg Pro Gly Gln Gln Pro
 260 265 270
 Gln Ala Gly Leu Ser Gln Ala Asn Phe Thr Leu Gly Pro Val Ser Pro
 275 280 285
 Ser His Gly Gly Gln Tyr Arg Cys Tyr Gly Ala His Asn Leu Ser Ser
 290 295 300
 Glu Trp Ser Ala Pro Ser Asp Pro Leu Asn Ile Leu Met Ala Gly Gln
 305 310 315 320
 Ile Tyr Asp Thr Val Ser Leu Ser Ala Gln Pro Gly Pro Thr Val Ala
 325 330 335
 Ser Gly Glu Asn Val Thr Leu Leu Cys Gln Ser Trp Trp Gln Phe Asp
 340 345 350
 Thr Phe Leu Leu Thr Lys Glu Gly Ala Ala His Pro Pro Leu Arg Leu
 355 360 365
 Arg Ser Met Tyr Gly Ala His Lys Tyr Gln Ala Glu Phe Pro Met Ser
 370 375 380
 Pro Val Thr Ser Ala His Ala Gly Thr Tyr Arg Cys Tyr Gly Ser Tyr
 385 390 395 400
 Ser Ser Asn Pro His Leu Leu Ser Phe Pro Ser Glu Pro Leu Glu Leu
 405 410 415
 Met Val Ser Gly His Ser Gly Gly Ser Ser Leu Pro Pro Thr Gly Pro
 420 425 430
 Pro Ser Thr Pro Gly Leu Gly Arg Tyr Leu Glu Val Leu Ile Gly Val
 435 440 445
 Ser Val Ala Phe Val Leu Leu Phe Leu Leu Leu Phe Leu Leu Leu
 450 455 460
 Arg Arg Gln Arg His Ser Lys His Arg Thr Ser Asp Gln Arg Lys Thr
 465 470 475 480
 Asp Phe Gln Arg Pro Ala Gly Ala Ala Glu Thr Glu Pro Lys Asp Arg
 485 490 495
 Gly Leu Leu Arg Arg Ser Ser Pro Ala Ala Asp Val Gln Glu Glu Asn
 500 505 510
 Leu Tyr Ala Ala Val Lys Asp Thr Gln Ser Glu Asp Arg Val Glu Leu
 515 520 525
 Asp Ser Gln Ser Pro His Asp Glu Asp Pro Gln Ala Val Thr Tyr Ala
 530 535 540
 Pro Val Lys His Ser Ser Pro Arg Arg Glu Met Ala Ser Pro Pro Ser
 545 550 555 560
 Ser Leu Ser Gly Glu Phe Leu Asp Thr Lys Asp Arg Gln Val Glu Glu
 565 570 575
 Asp Arg Gln Met Asp Thr Glu Ala Ala Ser Glu Ala Ser Gln Asp
 580 585 590
 Val Thr Tyr Ala Gln Leu His Ser Leu Thr Leu Arg Arg Lys Ala Thr
 595 600 605
 Glu Pro Pro Pro Ser Gln Glu Gly Glu Pro Pro Ala Glu Pro Ser Ile
 610 615 620
 Tyr Ala Thr Leu Ala Ile His
 625 630

<210> 13
 <211> 50
 <212> PRT
 <213> Homo sapiens

<400> 13
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Tyr Arg Leu Glu Lys Leu Lys Pro Glu Lys Tyr Glu Asp Gln Asp Phe
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 Leu Phe Ile Pro Thr Met Glu Arg Ser Asn Ala Gly Arg Tyr Arg Cys
 35 40 45
 Ser Tyr
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<210> 14
 <211> 1163
 <212> DNA
 <213> Mus musculus

<400> 14

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ccctgggtca	gtcagttatt	ctgagggtgcc	agggacctcc	agatgtggat	ttatatcgcc	240
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aaagaagtaa	tgctggacgg	tatcgatgct	ctatcagaa	tgggagtcac	tggtctctcc	360
caagtgacca	gcttgagcta	attgctacag	gtgtgtatgc	taaaccctca	ctctcagctc	420
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tgagagctt	gcaaaggcca	ctaccacccc	tcccactggc	ctagaaaataa	cttggcttcc	1020
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<210> 15
 <211> 939
 <212> DNA
 <213> Mus musculus

<400> 15

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ctgggtca	cagtattct	gagggtccag	ggacctccag	atgtggattt	atatcgccct	180
gagaaactga	aaccggagaa	gtatgaagat	caagactttc	tcttcttcc	aaccatggaa	240
agaagtaatg	ctggacggta	tcgatgctct	tatcagaatg	ggagtcactg	gtctctccca	300
agtgaccagc	ttgagctaat	tgctacaggt	gtgtatgcta	aaccctcact	ctcagctcat	360
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tttgcata	tcgttctata	caaagaaggg	gatactgggc	cttataagag	acctgagaaa	480
tggttacccggg	ccaatttccc	catcatcaca	gtgactgctg	ctcacagtgg	gacgttccgg	540
tgttacagct	tctccagctc	atctccatac	ctgtggtcag	ccccgagtga	ccctcttagtg	600
cttgcgttta	ctggactctc	tgccactccc	agccaggtac	ccacggaaga	atcatttct	660
gtgacagaat	cctccaggag	accttccatc	ttacccacaa	acaaaataatc	tacaactgaa	720
aaggctatga	atatcactgc	ctctccagag	gggctgagcc	ctccaattgg	ttttgctcat	780
cagcaactatg	ccaaggggaa	tctggtccgg	atatgccttg	gtgccacgt	tataataatt	840
ttgttggggc	ttcttagcaga	ggattggcac	agtccgaaga	aatgcctgca	acacaggatg	900
agagcttgc	aaaggccact	accaccctc	ccactggcc			939

<210> 16
 <211> 313
 <212> PRT
 <213> Mus musculus

<400> 16
Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
1 5 10 15
Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
20 25 30
Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
35 40 45
Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
50 55 60
Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
65 70 75 80
Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
85 90 95
Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
100 105 110
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
115 120 125
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
130 135 140
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
145 150 155 160
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
165 170 175
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
180 185 190
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
195 200 205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
210 215 220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
225 230 235 240
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
245 250 255
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
260 265 270
Leu Gly Ala Thr Ile Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
275 280 285
Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
290 295 300
Arg Pro Leu Pro Pro Leu Pro Leu Ala
305 310

<210> 17
<211> 21
<212> PRT
<213> Mus musculus

<400> 17
Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
1 5 10 15
Gln Val Ile Gln Thr
20

<210> 18
<211> 292
<212> PRT
<213> Mus musculus

<400> 18
Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln Ala Gln Pro Ser Ser
1 5 10 15

Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg Cys Gln Gly Pro Pro
 20 25 30
 Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys Pro Glu Lys Tyr Glu
 35 40 45
 Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu Arg Ser Asn Ala Gly
 50 55 60
 Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His Trp Ser Leu Pro Ser
 65 70 75 80
 Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr Ala Lys Pro Ser Leu
 85 90 95
 Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly Arg Asp Val Thr Leu
 100 105 110
 Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe Val Leu Tyr Lys Glu
 115 120 125
 Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys Trp Tyr Arg Ala Asn
 130 135 140
 Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys
 145 150 155 160
 Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp Ser Ala Pro Ser Asp
 165 170 175
 Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala Thr Pro Ser Gln Val
 180 185 190
 Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser Ser Arg Arg Pro Ser
 195 200 205
 Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu Lys Pro Met Asn Ile
 210 215 220
 Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile Gly Phe Ala His Gln
 225 230 235 240
 His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys Leu Gly Ala Thr Ile
 245 250 255
 Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp Trp His Ser Arg Lys
 260 265 270
 Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln Arg Pro Leu Pro Pro
 275 280 285
 Leu Pro Leu Ala
 290

<210> 19
 <211> 267
 <212> PRT
 <213> Mus musculus

<400> 19
 Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
 1 5 10 15
 Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
 20 25 30
 Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
 35 40 45
 Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
 50 55 60
 Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
 65 70 75 80
 Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
 85 90 95
 Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
 100 105 110
 Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
 115 120 125
 Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
 130 135 140

Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
145 150 155 160
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
165 170 175
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
180 185 190
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
195 200 205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
210 215 220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
225 230 235 240
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
245 250 255
Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn
260 265

<210> 20
<211> 19
<212> PRT
<213> Mus musculus

<400> 20
Leu Val Arg Ile Cys Leu Gly Ala Thr Ile Ile Ile Ile Leu Leu Gly
1 5 10 15
Leu Leu Ala

<210> 21
<211> 27
<212> PRT
<213> Mus musculus

<400> 21
Glu Asp Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala
1 5 10 15
Leu Gln Arg Pro Leu Pro Pro Leu Pro Leu Ala
20 25

<210> 22
<211> 41
<212> PRT
<213> Mus musculus

<400> 22
Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
1 5 10 15
Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
20 25 30
Arg Ser Asn Ala Gly Arg Tyr Arg Cys
35 40

<210> 23
<211> 47
<212> PRT
<213> Mus musculus

<400> 23
Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe Val Leu Tyr Lys Glu Gly
1 5 10 15
Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys Trp Tyr Arg Ala Asn Phe
20 25 30

Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly Thr Tyr Arg Cys
35 40 45

<210> 24
<211> 1896

<212> DNA

<213> Homo sapiens

<400> 24

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tgggggagcc ccgtgaccat ctggtgtcag gggagcctgg aggcccagga gtaccgactg 180
gataaaaggaa gaagccaga gcccttgac agaaataacc cactgaaacc caagaacaag 240
gccagattct ccatccatc catgacagag caccatgcgg ggagataccg ctgccactat 300
tacagctctg caggctggc agagcccagc gaccccttg agctggatg gacaggattc 360
tacaacaaac ccaccctctc agccctgccc agccctgtgg tggcctcagg gggaaatatg 420
accctccatgtggctcaca gaaggatat caccatttt ttctgtatgaa ggaaggagaa 480
caccagctcc cccggaccct ggactcacag cagctccaca gtggggggtt ccaggccctg 540
ttccctgtgg gcccgtgaa ccccagccac aggtggaggt tcacatgcta ttactattat 600
atgaacaccc cccaggtgtg gtcccacccc agtgacccccc tggagattct gccctcaggc 660
gtgtcttagga agccctccct cctgaccctg cagggccctg tcctggccc tggcagagc 720
ctgaccctcc agtgtggc tcatgtcgcc tacacagat ttgttctgta taaggagggg 780
gaacgtgaatccctcaggc ccctggccag cagccccagg ctgggcttc ccaggccaaac 840
ttcacccctgg gcccgtgag cccctccac gggggccagt acaggtgcta tggtgacac 900
aacctctcct ccgaatggc gggcccccaggc gacccctgaa acatctgtat ggcaggacag 960
atctatgaca ccgtctccct gtcaatcacag cccggccccc cagtggcctc aggagagaac 1020
gtgaccctgc tgtgtcagtc atggtgccag ttgtacactt tccttctgac caaagaagg 1080
gcagccccatc ccccaactgcg tctgagatca atgtacggag ctcataagta ccaggctgaa 1140
ttcccccattgt gtcctgtgac ctcagccac gggggaccc acaggtgcta cggctcatac 1200
agctccaacc cccacactgt gtcttcccc agtgagccccc tggaaactcat ggtctcagga 1260
caactctggag gctccagcc cccacccaca gggccggccct ccacacctgg tctggaaaga 1320
tacctggagg ttttattgg ggtctcggtg gccttcgtcc tgctgtctt ctcctccctc 1380
ttccctccctc tccgacgtca gcgtcacagc aaacacagga catctgacca gagaaagact 1440
gatttccagc gtcctgcagg ggctgcccgg acagagccca aggacagggg cctgctgagg 1500
aggtccagcc cagctgtga cgtccaggaa gaaaacctct atgctgcccgt gaaggacaca 1560
cagtcgtgagg acagggtgga gctggacagt cagagccac acgatgaaaga ccccccaggca 1620
gtgacgtatg ccccggtgaa acactccagt cctaggagag aaatggcctc tcctccctcc 1680
tcactgtctg gggattct ggacacaaag gacagacagg tggaaagagga caggcagatg 1740
gacactgggg ctgtgcattc tgaagctcc caggatgtga cctacgccc gctgcacagc 1800
ttgaccctta gacggaaaggc aactgaggcct cctccatccc aggaaggggg acctccagct 1860
gagcccgacatc tctacgcccac tctggccatc cactag 1896

<210> 25

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> forward primer

<400> 25

cagcctcacc cactttcttc 20

<210> 26

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> reverse primer

<400> 26

ccacaaggcac tagagggtca 20

<210> 27
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> sense primer

<400> 27

ttctgtcttg ggctgtgtct g 21

<210> 28
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> anti-sense primer

<400> 28

cccgccagga ttattaggat c 21

<210> 29
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> sense primer

<400> 29

cctgaagctg acagcattcg g 21

<210> 30
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> anti-sense primer

<400> 30

ctcctagagc tacctgtgga g 21

<210> 31
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> forward primer

<400> 31

ctgttagctgt tttcagacac acc 23

<210> 32
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> reverse primer

<400> 32

ccatcaccc tc tttctggta c

21

<210> 33

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 33

atgtctccat	ccccgaccgc	cctcttctgt	cttgggctgt	gtctggggcg	tgtgccagcg	60
cagagtggac	cgctcccaa	gcctccctc	caggttctgc	ccagctccct	ggtgcccccgt	120
gagaagccag	tgaccctccg	gtgccaggga	cctccgggcg	tggacctgt	ccgcctggag	180
aagctgagg	ccagcaggt	ccaggatca	gcagtccct	tcatcccggc	catgaagaga	240
agtctggctg	gacgctaccg	ctgctctac	cagaacggaa	gcctctggc	cctgcccagc	300
gaccagctgg	agctcggtc	cacgggagtt	tttgccaaac	cctcgctctc	agcccagccc	360
ggcccgccgg	tgtcgctagg	aggggacgt	accctacagt	gtcagactcg	gtatggctt	420
gaccaattt	ctctgtacaa	ggaaggggac	cctgcgcctc	acaagaatcc	cgagagatgg	480
taccgggctt	gtttcccat	catcacgg	accggccccc	acagcggAAC	ctaccgatgc	540
ta	ccagcagg	cccatac	tgtcgcccc	ccagcggaccc	cctggagctt	600
gtggtcacag	gacccctctgt	gaccccggc	cgttaccaa	cagaaccacc	ttcctcggt	660
gcagaattt	cagaagccac	cgctgaact	accgtctcat	tcacaaacaa	agtcttcaca	720
actgagactt	ctaggagtt	caccacc	ccaaaggagt	cagactctcc	agctggcc	780
gcccgc	actacaccaa	ggcaacctg	gtccggat	gcctcgggc	tgtgatccta	840
ataatcctgg	cggggttct	ggcagagg	tggcacagc	ggaggaagcg	cctgcggcac	900
aggggcagg	ctgtgcagag	gccgcttcc	ccctgcccgc	ccctcccgca	gaccggaaa	960
tcacacggg	gtcaggatgg	aggccgacag	gatgttcaca	gccgcgggtt	atgttca	1017

<210> 34

<211> 339

<212> PRT

<213> Homo sapiens

<400> 34

Met	Ser	Pro	Ser	Pro	Thr	Ala	Leu	Phe	Cys	Leu	Gly	Leu	Cys	Leu	Gly
1						5			10			15			
Arg	Val	Pro	Ala	Gln	Ser	Gly	Pro	Leu	Pro	Lys	Pro	Ser	Leu	Gln	Val
								20		25			30		
Leu	Pro	Ser	Ser	Leu	Val	Pro	Leu	Glu	Lys	Pro	Val	Thr	Leu	Arg	Cys
								35		40			45		
Gln	Gly	Pro	Pro	Gly	Val	Asp	Leu	Tyr	Arg	Leu	Glu	Lys	Leu	Ser	Ser
								50		55			60		
Ser	Arg	Tyr	Gln	Asp	Gln	Ala	Val	Leu	Phe	Ile	Pro	Ala	Met	Lys	Arg
								65		70			75		80
Ser	Leu	Ala	Gly	Arg	Tyr	Arg	Cys	Ser	Tyr	Gln	Asn	Gly	Ser	Leu	Trp
								85		90			95		
Ser	Leu	Pro	Ser	Asp	Gln	Leu	Glu	Leu	Val	Ala	Thr	Gly	Val	Phe	Ala
								100		105			110		
Lys	Pro	Ser	Leu	Ser	Ala	Gln	Pro	Gly	Pro	Ala	Val	Ser	Ser	Gly	Gly
								115		120			125		
Asp	Val	Thr	Leu	Gln	Cys	Gln	Thr	Arg	Tyr	Gly	Phe	Asp	Gln	Phe	Ala
								130		135			140		
Leu	Tyr	Lys	Glu	Gly	Asp	Pro	Ala	Pro	Tyr	Lys	Asn	Pro	Glu	Arg	Trp
								145		150			155		160
Tyr	Arg	Ala	Ser	Phe	Pro	Ile	Ile	Thr	Val	Thr	Ala	Ala	His	Ser	Gly
								165		170			175		
Thr	Tyr	Arg	Cys	Tyr	Ser	Phe	Ser	Ser	Arg	Asp	Pro	Tyr	Leu	Trp	Ser
								180		185			190		
Ala	Pro	Ser	Asp	Pro	Leu	Glu	Leu	Val	Val	Thr	Gly	Thr	Ser	Val	Thr
								195		200			205		

Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser
 210 215 220
 Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr
 225 230 235 240
 Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
 245 250 255
 Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Thr Lys Gly Asn Leu Val Arg
 260 265 270
 Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala
 275 280 285
 Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
 290 295 300
 Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys
 305 310 315 320
 Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly
 325 330 335
 Leu Cys Ser

<210> 35
 <211> 1017
 <212> DNA
 <213> Homo sapiens

<400> 35
 atgtctccat ccccgaccgc cctttctgt ctgggctgt gtctgggcg tggccagcg 60
 cagagtggac cgctcccaa gcccctc caggctctgc ccagctccct ggtccccctg 120
 gagaagccag tgaccctcg gtgccaggga cctccggcg tggacctgta ccgcctggag 180
 aagctgagtt ccagcaggtt ccaggatcg gtagtcctct tcattccggc catgaagaga 240
 agtctggctg gacgctaccg ctgctccat cagaacggaa gcctctggc cctgcccacg 300
 gaccagctgg agctcggtc cacggagtt ttggccaaac cctcgcttc agccagcccc 360
 ggcccgccgg tgcgtcagg agggacgta accctacagt gtcagactcg gatggcttt 420
 gaccaatttg ctctgtacaa ggaagggac cctgcgcctt acaagaatcc cgagagatgg 480
 taccgggcta gtttccccat catcacggc accggccccc acagcggAAC ctaccgatgc 540
 tacagcttct ccagcaggga cccatacctg tgcgtggccc ccagcggaccc cctggagctt 600
 gtggtcacag gaacctctgt gaccccccacg cggttaccaa cagaaccacc ttccctggta 660
 gcagaattct cagaagccac cgctgaactg accgtctcat tcacaaacaa agtcttcaca 720
 actgagactt ctaggagtt caccacca gcaaggagt cagactctcc agctggctt 780
 gcccggccagt actacaccaa gggcaacctg gtccggatat gcctcgggc tgcgtatccta 840
 ataatccctgg cggggtttct ggcagaggac tgcacacggc ggaggaagcg cctgcggcac 900
 aggggcaggg ctgtgcagag gccgcttccg cccctggcgc ccctccgcgca gacccggaaa 960
 tcacacgggg gtcaggatgg aggccgacag gatgttcaca gccgcgggtt atgttca 1017

<210> 36
 <211> 339
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Ser Pro Ser Pro Thr Ala Leu Phe Cys Leu Gly Leu Cys Leu Gly
 1 5 10 15
 Arg Val Pro Ala Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln Ala
 20 25 30
 Leu Pro Ser Ser Leu Val Pro Leu Glu Lys Pro Val Thr Leu Arg Cys
 35 40 45
 Gln Gly Pro Pro Gly Val Asp Leu Tyr Arg Leu Glu Lys Leu Ser Ser
 50 55 60
 Ser Arg Tyr Gln Asp Gln Val Val Leu Phe Ile Pro Ala Met Lys Arg
 65 70 75 80
 Ser Leu Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser Leu Trp
 85 90 95

Ser Leu Pro Ser Asp Gln Leu Glu Leu Val Ala Thr Gly Val Phe Ala
 100 105 110
 Lys Pro Ser Leu Ser Ala Gln Pro Gly Pro Ala Val Ser Ser Gly Gly
 115 120 125
 Asp Val Thr Leu Gln Cys Gln Thr Arg Tyr Gly Phe Asp Gln Phe Ala
 130 135 140
 Leu Tyr Lys Glu Gly Asp Pro Ala Pro Tyr Lys Asn Pro Glu Arg Trp
 145 150 155 160
 Tyr Arg Ala Ser Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser Gly
 165 170 175
 Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Arg Asp Pro Tyr Leu Trp Ser
 180 185 190
 Ala Pro Ser Asp Pro Leu Glu Leu Val Val Thr Gly Thr Ser Val Thr
 195 200 205
 Pro Ser Arg Leu Pro Thr Glu Pro Pro Ser Ser Val Ala Glu Phe Ser
 210 215 220
 Glu Ala Thr Ala Glu Leu Thr Val Ser Phe Thr Asn Lys Val Phe Thr
 225 230 235 240
 Thr Glu Thr Ser Arg Ser Ile Thr Thr Ser Pro Lys Glu Ser Asp Ser
 245 250 255
 Pro Ala Gly Pro Ala Arg Gln Tyr Tyr Lys Gly Asn Leu Val Arg
 260 265 270
 Ile Cys Leu Gly Ala Val Ile Leu Ile Ile Leu Ala Gly Phe Leu Ala
 275 280 285
 Glu Asp Trp His Ser Arg Arg Lys Arg Leu Arg His Arg Gly Arg Ala
 290 295 300
 Val Gln Arg Pro Leu Pro Pro Leu Pro Pro Leu Pro Gln Thr Arg Lys
 305 310 315 320
 Ser His Gly Gly Gln Asp Gly Gly Arg Gln Asp Val His Ser Arg Gly
 325 330 335
 Leu Cys Ser

<210> 37
 <211> 1017
 <212> DNA
 <213> Homo sapiens

<400> 37

atgtctccat ccccgaccgc cctcttctgt ctgggctgt	gtctggggcg tggccagcg	60
cagagtggac cgctcccaa gcccctcc	caggctctgc ccagccct	120
gagaagccag tgaccctccg	gtgccagggc cttccggcg	180
aagctgagg	tgacgttgc	240
ccagcaggt	ccaggatcag	300
gacgctaccg	gcagtcctct	360
gaccagctgg	ctgctctac	420
agtcgttgc	cagaacggaa	480
tttgccttc	gcctctggc	540
tttgccttc	cctcgctctc	600
tttgccttc	agcccagccc	660
tttgccttc	gtcagactcg	720
tttgccttc	gtatggctt	780
tttgccttc	gaccaattt	840
tttgccttc	ctctgtacaa	900
tttgccttc	ggaaggggac	960
tttgccttc	cctgcgcct	1017
tttgccttc	acaagaatcc	
tttgccttc	cgagagatgg	
tttgccttc	tacccat	
tttgccttc	catcacggcg	
tttgccttc	accggccccc	
tttgccttc	acagcggAAC	
tttgccttc	ctaccgatgc	
tttgccttc	tacagcttct	
tttgccttc	ccagcaggga	
tttgccttc	cccataacct	
tttgccttc	tggtcgcccc	
tttgccttc	ccagcgaccc	
tttgccttc	cctggagctt	
tttgccttc	gtggtcacag	
tttgccttc	gaacctctgt	
tttgccttc	gaccccacgc	
tttgccttc	cggttaccaa	
tttgccttc	cagaaccacc	
tttgccttc	ttcctcggt	
tttgccttc	gcagaatttct	
tttgccttc	cagaagccac	
tttgccttc	cgctgaactg	
tttgccttc	accgtctcat	
tttgccttc	tcacaaaacaa	
tttgccttc	agtcttcaca	
tttgccttc	actgagactt	
tttgccttc	ctaggagtat	
tttgccttc	caccaccagt	
tttgccttc	ccaaaggagt	
tttgccttc	cagactctcc	
tttgccttc	agctggct	
tttgccttc	gcccggccagt	
tttgccttc	actacaccaa	
tttgccttc	ggcaacctg	
tttgccttc	gtccggatat	
tttgccttc	gcctcggggc	
tttgccttc	tgtgatccta	
tttgccttc	ataatcctgg	
tttgccttc	cggggtttct	
tttgccttc	ggcagaggac	
tttgccttc	tggcacagcc	
tttgccttc	ggaggaagcg	
tttgccttc	cctgcggcac	
tttgccttc	agggggcaggg	
tttgccttc	ctgtgcagag	
tttgccttc	gcccgttccg	
tttgccttc	cccccgtccgc	
tttgccttc	ccctcccgca	
tttgccttc	gaccgggaaa	
tttgccttc	tcacacgggg	
tttgccttc	gtcaggatgg	
tttgccttc	aggccgacag	
tttgccttc	gatgttcaca	
tttgccttc	gcccgggtt	
tttgccttc	atgttca	

<210> 38

<211> 339

<212> PRT

<213> Homo sapiens

<400> 38

Met	Ser	Pro	Ser	Pro	Thr	Ala	Leu	Phe	Cys	Leu	Gly	Leu	Cys	Leu	Gly
1															15
Arg	Val	Pro	Ala	Gln	Ser	Gly	Pro	Leu	Pro	Lys	Pro	Ser	Leu	Gln	Ala
															20
Leu	Pro	Ser	Ser	Leu	Val	Pro	Leu	Glu	Lys	Pro	Val	Thr	Leu	Arg	Cys
															35
Gln	Gly	Pro	Pro	Gly	Val	Asp	Leu	Tyr	Arg	Leu	Glu	Lys	Leu	Ser	Ser
															50
Ser	Arg	Tyr	Gln	Asp	Gln	Ala	Val	Leu	Phe	Ile	Pro	Ala	Met	Lys	Arg
															65
Ser	Leu	Ala	Gly	Arg	Tyr	Arg	Cys	Ser	Tyr	Gln	Asn	Gly	Ser	Leu	Trp
															85
Ser	Leu	Pro	Ser	Asp	Gln	Leu	Glu	Leu	Val	Ala	Thr	Gly	Val	Phe	Ala
															100
Lys	Pro	Ser	Leu	Ser	Ala	Gln	Pro	Gly	Pro	Ala	Val	Ser	Ser	Gly	Gly
															115
Asp	Val	Thr	Leu	Gln	Cys	Gln	Thr	Arg	Tyr	Gly	Phe	Asp	Gln	Phe	Ala
															130
Leu	Tyr	Lys	Glu	Gly	Asp	Pro	Ala	Pro	Tyr	Lys	Asn	Pro	Glu	Arg	Trp
															145
Tyr	Arg	Ala	Ser	Phe	Pro	Ile	Ile	Thr	Ala	Thr	Ala	Ala	His	Ser	Gly
															165
Thr	Tyr	Arg	Cys	Tyr	Ser	Phe	Ser	Ser	Arg	Asp	Pro	Tyr	Leu	Trp	Ser
															180
Ala	Pro	Ser	Asp	Pro	Leu	Glu	Leu	Val	Val	Thr	Gly	Thr	Ser	Val	Thr
															195
Pro	Ser	Arg	Leu	Pro	Thr	Glu	Pro	Pro	Ser	Ser	Val	Ala	Glu	Phe	Ser
															210
Glu	Ala	Thr	Ala	Glu	Leu	Thr	Val	Ser	Phe	Thr	Asn	Lys	Val	Phe	Thr
															225
Thr	Glu	Thr	Ser	Arg	Ser	Ile	Thr	Thr	Ser	Pro	Lys	Glu	Ser	Asp	Ser
															245
Pro	Ala	Gly	Pro	Ala	Arg	Gln	Tyr	Tyr	Thr	Lys	Gly	Asn	Leu	Val	Arg
															260
Ile	Cys	Leu	Gly	Ala	Val	Ile	Leu	Ile	Ile	Leu	Ala	Gly	Phe	Leu	Ala
															275
Glu	Asp	Trp	His	Ser	Arg	Arg	Lys	Arg	Leu	Arg	His	Arg	Gly	Arg	Ala
															290
Val	Gln	Arg	Pro	Leu	Pro	Pro	Leu	Pro	Pro	Leu	Pro	Gln	Thr	Arg	Lys
															305
Ser	His	Gly	Gly	Gln	Asp	Gly	Gly	Arg	Gln	Asp	Val	His	Ser	Arg	Gly
															325
Leu Cys Ser															

<210> 39
<211> 1017
<212> DNA
<213> Homo sapiens

<400> 39

atgtctccat	ccccgaccgc	cctcttctgt	cttgggctgt	gtctggggcg	tgtgccagcg	60
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gagaagccag	tgaccctccg	gtgccaggg	cctccgggcg	tggacctgta	ccgcctggag	180
aagctgagtt	ccagcaggt	ccaggatcag	gcagtcctct	tcatcccgcc	catgaagaga	240
agtctggctg	gacgctaccg	ctgctccctac	cagaacggaa	gcctctggtc	cctgcccagc	300
gaccagctgg	agctcggtc	cacggaggtt	tttgcacaaac	cctcgctctc	agccccagccc	360
ggcccccgggg	tgtcggtcagg	aggggacgt	accctacagt	gtcagactcg	gtatggctt	420
gaccaatttg	ctctgtacaa	ggaaggggac	cctgcgcct	acaagaatcc	cgagagatgg	480
taccggggcta	gtttccccat	catcacgggt	accggcgccc	acagcggAAC	ctaccgatgc	540
tacagcttct	ccagcaggga	ccatacctg	tggtcgggtcc	ccagcgaccc	cctggagctt	600

gtggtcacag	gaacctctgt	gaccccccagc	cggttaccaa	cagaaccacc	ttcctcggt	660
gcagaattct	cagaagccac	cgctgaactg	accgtctcat	tcacaaacaa	agtcttcaca	720
actgagactt	ctaggagtt	caccaccagt	ccaaaggagt	cagactctcc	agctggtcct	780
ccccgcctgt	actacaccaa	ggcaacctg	gtccggatat	gcctcgggc	tgtgatccta	840
ataatcctgg	cggggttct	ggcagaggac	tgcacagcc	ggaggaagcg	cctgcggcac	900
aggggcaggg	ctgtcagag	gcccgttccg	cccctgccgc	ccctcccgca	gaccggaaaa	960
tcacacgggg	gtcaggatgg	aggccgacag	gatgttcaca	gccgcgggtt	atgttca	1017

<210> 40
 <211> 339
 <212> PRT
 <213> Homo sapiens

<400> 40																
Met	Ser	Pro	Ser	Pro	Thr	Ala	Leu	Phe	Cys	Leu	Gly	Leu	Cys	Leu	Gly	
1				5				10		15						
Arg	Val	Pro	Ala	Gln	Ser	Gly	Pro	Leu	Pro	Lys	Pro	Ser	Leu	Gln	Ala	
				20				25		30						
Leu	Pro	Ser	Ser	Leu	Val	Pro	Leu	Glu	Lys	Pro	Val	Thr	Leu	Arg	Cys	
				35				40		45						
Gln	Gly	Pro	Pro	Gly	Val	Asp	Leu	Tyr	Arg	Leu	Glu	Lys	Leu	Ser	Ser	
				50				55		60						
Ser	Arg	Tyr	Gln	Asp	Gln	Ala	Val	Leu	Phe	Ile	Pro	Ala	Met	Lys	Arg	
	65			70				75		80						
Ser	Leu	Ala	Gly	Arg	Tyr	Arg	Cys	Ser	Tyr	Gln	Asn	Gly	Ser	Leu	Trp	
	85			90				95								
Ser	Leu	Pro	Ser	Asp	Gln	Leu	Glu	Leu	Val	Ala	Thr	Gly	Val	Phe	Ala	
	100					105					110					
Lys	Pro	Ser	Leu	Ser	Ala	Gln	Pro	Gly	Pro	Ala	Val	Ser	Ser	Gly	Gly	
	115					120					125					
Asp	Val	Thr	Leu	Gln	Cys	Gln	Thr	Arg	Tyr	Gly	Phe	Asp	Gln	Phe	Ala	
	130					135					140					
Leu	Tyr	Lys	Glu	Gly	Asp	Pro	Ala	Pro	Tyr	Lys	Asn	Pro	Glu	Arg	Trp	
	145					150					155				160	
Tyr	Arg	Ala	Ser	Phe	Pro	Ile	Ile	Thr	Val	Thr	Ala	Ala	His	Ser	Gly	
						165					170				175	
Thr	Tyr	Arg	Cys	Tyr	Ser	Phe	Ser	Ser	Arg	Asp	Pro	Tyr	Leu	Trp	Ser	
						180					185				190	
Val	Pro	Ser	Asp	Pro	Leu	Glu	Leu	Val	Val	Val	Thr	Gly	Thr	Ser	Val	Thr
						195					200				205	
Pro	Ser	Arg	Leu	Pro	Thr	Glu	Pro	Pro	Ser	Ser	Val	Ala	Glu	Phe	Ser	
						210					215				220	
Glu	Ala	Thr	Ala	Glu	Leu	Thr	Val	Ser	Phe	Thr	Asn	Lys	Val	Phe	Thr	
	225					230					235				240	
Thr	Glu	Thr	Ser	Arg	Ser	Ile	Thr	Thr	Ser	Pro	Lys	Glu	Ser	Asp	Ser	
						245					250				255	
Pro	Ala	Gly	Pro	Ala	Arg	Gln	Tyr	Tyr	Thr	Lys	Gly	Asn	Leu	Val	Arg	
						260					265				270	
Ile	Cys	Leu	Gly	Ala	Val	Ile	Leu	Ile	Ile	Leu	Ala	Gly	Phe	Leu	Ala	
						275					280				285	
Glu	Asp	Trp	His	Ser	Arg	Arg	Lys	Arg	Leu	Arg	His	Arg	Gly	Arg	Ala	
	290					295					300					
Val	Gln	Arg	Pro	Leu	Pro	Pro	Leu	Pro	Pro	Leu	Pro	Gln	Thr	Arg	Lys	
	305					310					315				320	
Ser	His	Gly	Gly	Gln	Asp	Gly	Gly	Arg	Gln	Asp	Val	His	Ser	Arg	Gly	
						325					330				335	
Leu Cys Ser																

<210> 41
 <211> 939
 <212> DNA

<213> Mus musculus

<400> 41

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acacagagtg	ccccactccc	caagccttcc	ctccaggctc	agcccagttc	cctggtaccc	120
ctgggtca	gtcgttattct	gagggtccag	ggacctccag	atgtgattt	atatcgctg	180
gagaaactga	aaccggagaa	gtatgaagat	caagactttc	tcttcattcc	aaccatggaa	240
agaagtaatg	ttggacggta	tcgatgtct	tatcagaatg	ggagtcactg	gtctctccca	300
agtgaccagc	tttagctaat	tgctacaggt	gtgtatgtca	aaccctca	ctcagctcat	360
cccagctcag	cagtccctca	aggcaggat	gtgactctga	agtgcagag	cccatacagt	420
ttttagatgaat	tcgttctata	caaagaaggg	gatactgggc	cttataagag	acctgagaaa	480
ttgttaccggg	ccaatttccc	catcataca	gtgactgtct	ctcacagtgg	gacgtaccgg	540
tgttacagct	tctccagctc	atctccatac	ctgtggtca	ccccgagtga	ccctctagtg	600
ctttaggtt	ctggactctc	tgccactccc	agccaggtac	ccacggaaga	atcatttcct	660
gtgacagaat	cctccaggag	accttccatc	ttacccacaa	acaaaatatac	tacaactgaa	720
aagcctatga	atatcaactgc	ctctccagag	ggctgagcc	ctccaattgg	ttttgctcat	780
cagcaactatg	ccaagggaa	tctggccgg	atatgccttg	gtgccacgat	tataataatt	840
ttgttggggc	ttcttagcaga	ggattggcac	agtgcgaaga	aatgcctgca	acacaggatg	900
agagcttgc	aaaggccact	accaccctc	ccactggcc			939

<210> 42

<211> 313

<212> PRT

<213> Mus musculus

<400> 42

Met	Ser	Pro	Ala	Ser	Pro	Thr	Phe	Phe	Cys	Ile	Gly	Leu	Cys	Val	Leu
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Gln	Val	Ile	Gln	Thr	Gln	Ser	Gly	Pro	Leu	Pro	Lys	Pro	Ser	Leu	Gln
										25					30
Ala	Gln	Pro	Ser	Ser	Leu	Val	Pro	Leu	Gly	Gln	Ser	Val	Ile	Leu	Arg
										40					45
Cys	Gln	Gly	Pro	Pro	Asp	Val	Asp	Leu	Tyr	Arg	Leu	Glu	Lys	Leu	Lys
										55					60
Pro	Glu	Lys	Tyr	Glu	Asp	Gln	Asp	Phe	Leu	Phe	Ile	Pro	Thr	Met	Glu
										70					80
Arg	Ser	Asn	Val	Gly	Arg	Tyr	Arg	Cys	Ser	Tyr	Gln	Asn	Gly	Ser	His
										85					95
Trp	Ser	Leu	Pro	Ser	Asp	Gln	Leu	Glu	Leu	Ile	Ala	Thr	Gly	Val	Tyr
										100					110
Ala	Lys	Pro	Ser	Leu	Ser	Ala	His	Pro	Ser	Ser	Ala	Val	Pro	Gln	Gly
										115					125
Arg	Asp	Val	Thr	Leu	Lys	Cys	Gln	Ser	Pro	Tyr	Ser	Phe	Asp	Glu	Phe
										130					140
Val	Leu	Tyr	Lys	Glu	Gly	Asp	Thr	Gly	Pro	Tyr	Lys	Arg	Pro	Glu	Lys
										145					160
Trp	Tyr	Arg	Ala	Asn	Phe	Pro	Ile	Ile	Thr	Val	Thr	Ala	Ala	His	Ser
										165					175
Gly	Thr	Tyr	Arg	Cys	Tyr	Ser	Phe	Ser	Ser	Ser	Pro	Tyr	Leu	Trp	
										180					190
Ser	Ala	Pro	Ser	Asp	Pro	Leu	Val	Leu	Val	Val	Thr	Gly	Leu	Ser	Ala
										195					205
Thr	Pro	Ser	Gln	Val	Pro	Thr	Glu	Glu	Ser	Phe	Pro	Val	Thr	Glu	Ser
										210					220
Ser	Arg	Arg	Pro	Ser	Ile	Leu	Pro	Thr	Asn	Lys	Ile	Ser	Thr	Thr	Glu
										225					240
Lys	Pro	Met	Asn	Ile	Thr	Ala	Ser	Pro	Glu	Gly	Leu	Ser	Pro	Pro	Ile
										245					255
Gly	Phe	Ala	His	Gln	His	Tyr	Ala	Lys	Gly	Asn	Leu	Val	Arg	Ile	Cys
										260					270
Leu	Gly	Ala	Thr	Ile	Ile	Ile	Ile	Leu	Leu	Gly	Leu	Leu	Ala	Glu	Asp
										275					285

Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
 290 295 300
 Arg Pro Leu Pro Pro Leu Pro Leu Ala
 305 310

<210> 43
 <211> 939
 <212> DNA
 <213> Mus musculus

<400> 43
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 acacagatg gcccactccc caagcctcc ctccaggctc agcccagttc cctggtagcc 120
 ctgggtcagt cagttattct gaggtgccag ggacctccag atgtggattt atatgcctg 180
 gagaaactga aaccggagaa gtatgaagat caagacttgc tcttcattcc aaccatggaa 240
 agaagtaatg ctggacggta tcgatgtct tatcagaatg ggagtcaactg gtctctccca 300
 agtgaccagc tttagctaat tgctacaggt gtgtatgtca aaccctcact ctcagctcat 360
 cccagcttag cagtccctca aggcaggat gtgactctga agtgcagag cccatacagt 420
 tttgtatgaat tcgttctata caaagaaggg gatactgggc cttataagag acctgagaaa 480
 tggtagccggg tcaatttccc catcatcaca gtgactgctg ctcacagtgg gacgtaccgg 540
 tggtacagct tctccagctc atctccatac ctgtggtcag ccccgagtga ccctctagtg 600
 cttgtggta ctggactctc tgccactccc agccaggatcc acacggaga atcatttct 660
 gtgacagaat cctccaggag accttcacatc ttacccacaa aaaaaatacataactgaa 720
 aaggctatga atatcactgc ctctccagag ggctgagcc ctccaattgg ttttgctcat 780
 cagcaactatg ccaagggaa tctggccgg atatgccttgc gtgccacgat tataataatt 840
 ttgttggggc ttcttagcaga ggattggcac agtgcgaa aatgcctgca acacaggatg 900
 agagcttgc aaaggccact accaccctc ccactggcc 939

<210> 44
 <211> 313
 <212> PRT
 <213> Mus musculus

<400> 44
 Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
 1 5 10 15
 Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
 20 25 30
 Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
 35 40 45
 Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
 50 55 60
 Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
 65 70 75 80
 Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
 85 90 95
 Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
 100 105 110
 Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
 115 120 125
 Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
 130 135 140
 Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
 145 150 155 160
 Trp Tyr Arg Val Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
 165 170 175
 Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
 180 185 190
 Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
 195 200 205
 Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
 210 215 220

Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
 225 230 235 240
 Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
 245 250 255
 Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
 260 265 270
 Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
 275 280 285
 Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
 290 295 300
 Arg Pro Leu Pro Pro Leu Pro Leu Ala
 305 310

<210> 45
 <211> 939
 <212> DNA
 <213> Mus musculus

<400> 45
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 acacagatg gcccactccc caagccttcc ctccaggctc agcccagttc cctggtagcc 120
 ctgggtca gaggatattct gaggtgccag ggacctccag atgtggattt atatcgctg 180
 gagaaactga aaccggagaa gtatgaagat caagactttc tcttcatattcc aaccatggaa 240
 agaagtaatg ctggacggta tcgatgtct tatcagaatg ggagtcaactg gtctctccca 300
 agtgaccagc tttagctaat tgctacaggt gtgtatgcta aaccctcaact ctcagctcat 360
 cccagctca cagccccctca aggcaggat gtgactctga agtgccagag cccatacagt 420
 tttgtatgaat tcgttctata caaagaaggg gatactgggc cttataagag acctgagaaa 480
 tggtaccggg ccaattttccc catcatcaca gtgactgctg ctcacagtgg gacgtaccgg 540
 tggtagct tctccagctc atctccatac ctgtggtag ccccgagtga ccctctatgt 600
 cttgtggta ctggactctc tgccactccc agccaggtac ccacggaaga atcatttct 660
 gtgacagaat cctccaggag accttccatc ttacccacaa aaaaaatatc tacaactgaa 720
 aaggctatga atatcactgc ctctccagag gggctgagcc ctccaattgg ttttgctcat 780
 cagcaactatg ccaagggaa tctggccgg atatgccttg gtgcccacgat tataataatt 840
 ttgttggggc ttcttagcaga ggattggcac agtcggaaga aatgcctgca acacaggatg 900
 agagcttgc aaaggccact accaccctc ccactggcc 939

<210> 46
 <211> 313
 <212> PRT
 <213> Mus musculus

<400> 46
 Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
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 Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
 20 25 30
 Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
 35 40 45
 Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
 50 55 60
 Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
 65 70 75 80
 Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
 85 90 95
 Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
 100 105 110
 Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Ala Pro Gln Gly
 115 120 125
 Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
 130 135 140
 Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
 145 150 155 160

Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
 165 170 175
 Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
 180 185 190
 Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
 195 200 205
 Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
 210 215 220
 Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
 225 230 235 240
 Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
 245 250 255
 Gly Phe Ala His Gln His Tyr Ala Lys Gly Asn Leu Val Arg Ile Cys
 260 265 270
 Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
 275 280 285
 Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
 290 295 300
 Arg Pro Leu Pro Pro Leu Pro Leu Ala
 305 310

<210> 47
 <211> 939
 <212> DNA
 <213> Mus musculus

<400> 47

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 ctgggtcagt cagttattct gaggtgccag ggacctccag atgtggattt atatcgctg 180
 gagaaactga aaccggagaa gtatgaagat caagactttc tcttcattcc aaccatggaa 240
 agaagtaatg ctggacggta tcgatgtct tatcagaatg ggagtcactg gtctctccca 300
 agtgaccagc tttagctaat tgctacaggt gtgtatgcta aaccctcact cttagctcat 360
 cccagctcag cagtcctca aggcaggat gtgactctga agtgccagag cccatacagt 420
 tttgtatgaat tcgttctata caaagaaggg gatactggc cttataaagag acctgagaaa 480
 tggtagccggg ccaatttccc catcatcaca gtgactgtg ctcacagtgg gacgtaccgg 540
 tggtagct tctccagctc atctccatac ctgtggtcag ccccgagtga ccctcttagtg 600
 cttgtggta ctggactctc tgccactccc agccaggtac ccacggaaga atcatttct 660
 gtgacagaat cctccaggag accttccatc ttaccacaaa aaaaaatatacataactgaa 720
 aagcctatga atatcactgc ctctccagag gggctgagcc ctccaaattgg ttttgctcat 780
 cagcactatg tcaaggggaa tctggccgg atatgccttg gtgcccacatataataatt 840
 ttgttggggc ttcttagcaga ggattggcac agtcggaaga aatgcctgca acacaggatg 900
 agagcttgc aaaggccact accaccctc ccactggcc 939

<210> 48
 <211> 313
 <212> PRT
 <213> Mus musculus

<400> 48

Met Ser Pro Ala Ser Pro Thr Phe Phe Cys Ile Gly Leu Cys Val Leu
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 Gln Val Ile Gln Thr Gln Ser Gly Pro Leu Pro Lys Pro Ser Leu Gln
 20 25 30
 Ala Gln Pro Ser Ser Leu Val Pro Leu Gly Gln Ser Val Ile Leu Arg
 35 40 45
 Cys Gln Gly Pro Pro Asp Val Asp Leu Tyr Arg Leu Glu Lys Leu Lys
 50 55 60
 Pro Glu Lys Tyr Glu Asp Gln Asp Phe Leu Phe Ile Pro Thr Met Glu
 65 70 75 80
 Arg Ser Asn Ala Gly Arg Tyr Arg Cys Ser Tyr Gln Asn Gly Ser His
 85 90 95

Trp Ser Leu Pro Ser Asp Gln Leu Glu Leu Ile Ala Thr Gly Val Tyr
100 105 110
Ala Lys Pro Ser Leu Ser Ala His Pro Ser Ser Ala Val Pro Gln Gly
115 120 125
Arg Asp Val Thr Leu Lys Cys Gln Ser Pro Tyr Ser Phe Asp Glu Phe
130 135 140
Val Leu Tyr Lys Glu Gly Asp Thr Gly Pro Tyr Lys Arg Pro Glu Lys
145 150 155 160
Trp Tyr Arg Ala Asn Phe Pro Ile Ile Thr Val Thr Ala Ala His Ser
165 170 175
Gly Thr Tyr Arg Cys Tyr Ser Phe Ser Ser Ser Pro Tyr Leu Trp
180 185 190
Ser Ala Pro Ser Asp Pro Leu Val Leu Val Val Thr Gly Leu Ser Ala
195 200 205
Thr Pro Ser Gln Val Pro Thr Glu Glu Ser Phe Pro Val Thr Glu Ser
210 215 220
Ser Arg Arg Pro Ser Ile Leu Pro Thr Asn Lys Ile Ser Thr Thr Glu
225 230 235 240
Lys Pro Met Asn Ile Thr Ala Ser Pro Glu Gly Leu Ser Pro Pro Ile
245 250 255
Gly Phe Ala His Gln His Tyr Val Lys Gly Asn Leu Val Arg Ile Cys
260 265 270
Leu Gly Ala Thr Ile Ile Ile Leu Leu Gly Leu Leu Ala Glu Asp
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Trp His Ser Arg Lys Lys Cys Leu Gln His Arg Met Arg Ala Leu Gln
290 295 300
Arg Pro Leu Pro Pro Leu Pro Leu Ala
305 310

<210> 49
<211> 5
<212> PRT
<213> Homo sapiens

<400> 49
Ser Tyr Trp Ile Ser
1 5

<210> 50
<211> 17
<212> PRT
<213> Homo sapiens

<400> 50
Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe Gln
1 5 10 15
Gly

<210> 51
<211> 11
<212> PRT
<213> Homo sapiens

<400> 51
His Gly Ser Asp Arg Gly Trp Gly Phe Asp Pro
1 5 10

<210> 52
<211> 8
<212> PRT
<213> Homo sapiens

<400> 52
Asn Gly Val Asn Ser Asp Val Gly
1 5

<210> 53
<211> 7
<212> PRT
<213> Homo sapiens

<400> 53
Glu Val Asn Lys Arg Pro Ser
1 5

<210> 54
<211> 9
<212> PRT
<213> Homo sapiens

<400> 54
Ser Tyr Thr Ser Asn Asn Thr Pro Val
1 5

<210> 55
<211> 5
<212> PRT
<213> Homo sapiens

<400> 55
Ser Tyr Ser Met Asn
1 5

<210> 56
<211> 17
<212> PRT
<213> Homo sapiens

<400> 56
Ser Ile Ser Ser Ser Gly Arg Tyr Ile Ser Tyr Gly Asp Ser Val Lys
1 5 10 15
Gly

<210> 57
<211> 8
<212> PRT
<213> Homo sapiens

<400> 57
Asp Ile Ser Ser Ala Met Asp Val
1 5

<210> 58
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